

REMARKS/ARGUMENTS

The Examiner objects to claims 3, 7-8, 27-28, 33, and 37 under 37 CFR 1.75(c). These objections are rendered moot by the cancellation of these claims.

The Examiner rejects claims 1-6, 9, 10, 12-16, 18 and 20-26 under 35 U.S.C. §102(b) as being anticipated by Peck et al. (U.S. 5,748,843); claims 29-32 under 35 U.S.C. §102(e) as being anticipated over Peck et al. in view of Johnson (U.S. 5,835,571); claims 19 and 34-36 under 35 U.S.C. §103(a) as being anticipated over Peck et al. in view of Fitzpatrick et al. (U.S. 5,671,328);

Applicant respectfully traverses the Examiner's rejections. Neither Foti nor Creamer teach or suggest at least the following italicized features of the independent claims:

38. A method, comprising:
(a) receiving at least a first voice command;
(b) determining whether the at least a first voice command corresponds to a macroinstruction having a respective set of instructions;
(c) when the at least a first voice command corresponds to a macroinstruction, executing the respective set of instructions, the respective set of instructions corresponding to a plurality of further voice commands;
(d) *when the at least a first voice command does not correspond to a macroinstruction, determining whether the at least a first voice command corresponds to a nonmacroinstruction; and*
(e) *when the at least a first voice command corresponds to a nonmacroinstruction, executing the nonmacroinstruction.*

51. A telecommunications system, comprising:
a switching system operable to configure and effect desired connections;
a voice recognition module operable to identify voice commands and macroinstruction names spoken by a user;
a macrolibrary operable to store macroinstructions and associated macroinstruction names;
a voice agent operable to (a) receive identified voice commands and macroinstruction names from the voice recognition module, (b) associate the identified voice command and macroinstruction name with the one or more

corresponding sets of instructions, and (c) when an identified macroinstruction name is received, cause the performance of at least one work item associated with the one or more sets of instructions corresponding to the identified macroinstruction, *wherein a set of instructions corresponding to a macroinstruction comprises a set of voice commands and, for each voice command, a respective set of instructions and wherein, when a identified macroinstruction name is received, each instruction in the respective set of instructions is executed at least one of substantially simultaneously and simultaneously.*

62. A telecommunication system, comprising:
a voice agent operable to (a) receive at least a first voice command; (b) determine whether the at least a first voice command corresponds to a macroinstruction having a respective set of instructions; (c) when the at least a first voice command corresponds to a macroinstruction, execute the respective set of instructions, the respective set of instructions corresponding to a plurality of further voice commands; (d) *when the at least a first voice command does not correspond to a macroinstruction, determine whether the at least a first voice command corresponds to a nonmacroinstruction;* and (e) *when the at least a first voice command corresponds to a nonmacroinstruction, execute the nonmacroinstruction.*

The present invention is directed to a voice portal that uses voice macros to invoke a number of discrete voice commands by speaking the word or phrase corresponding to the voice macro. In one configuration, the voice portal first determines whether a spoken word or phrase matches one or more sets of macroinstructions in the macrolibrary and second, if the word or phrase is not in the macrolibrary, processes the spoken work or phrase as a non-macroinstruction. By first determining if the word or phrase is in the macrolibrary and then processing the voice command as a nonmacroinstruction, the voice agent prevents system conflicts where a word or phrase references both macro- and nonmacroinstructions. In another configuration, the voice

portal, when a macroinstruction is named by a user, executes the instructions corresponding to the macroinstruction simultaneously or substantially simultaneously.

Peck et al.

Peck et al. is directed to speech recognition control of apparel manufacture equipment. The operator can use a macro definition voice reference pattern to invoke verbally a series of digital control signals. That is, the computer, in response to the operator's command, records the order and timing of a series of verbal commands and executes the command sequence, in the proper order and at the proper timing, in response to a single operator command. Peck et al. uses a library of stored voice reference patterns and a separate operator specific library. The operator specific library includes both macroinstructions and nonmacroinstructions. Macroinstruction names are associated with a macro memory position instead of a digital control signal. It appears that nonmacroinstruction names or voice commands must be different from macroinstruction names to avoid system conflicts.

To invoke the macro capability, the operator must laboriously invoke a "macro" or learn mode and, to deactivate the capability, deactivate the learn mode. (Col. 12, lines 39-43.) In other words, the architecture of Peck et al. only searches for macroinstructions when and if the "learn" phrase is spoken by the user. When the "learn" phrase is spoken, it does not search the nonmacroinstruction or digital control signal portion of the operator specific library. (Col. 12, lines 32-67.)

Macroinstructions are created by activating the macro capability when the computer 14 is already in learn mode. In that event, the computer records the address, or position, of the digital control signal corresponding to the matched digitized voice reference pattern and the time between its selection and that of the prior digital control signal.

Ortega

Ortega is directed to a method for creating dictation macros that includes a series of steps including storing selected text from a text string and displaying a graphical user interface for naming a dictation macro responsive to a first user command. The “macro” of Ortega is not a collection of embedded voice commands and corresponding instructions invoked by a spoken word or phrase. The voice “macro” of Ortega is associated with a block of text. After the macro is created, the macro text will be typed whenever the macro name is spoken.

Johnson

Johnson is directed to a system for automatically interfacing a telephone user to an automated telephone service. Johnson teaches away from traditional macros. (Col. 2, lines 14-17.) A macro is recorded, during a user’s verbal negotiation of a menu, by saving a button type that is determined by the duration of the telephone button pressed, the button, and the time since press of the previous entry. In this manner, the user can invoke the saved recording of interface activity at any time so that the automated telephone service is interfaced to in an automatic

manner. Thus, to record a macro the user must interface to an automated service and record the interaction. A macro can be invoked by button or voice.

The recording of the interaction is not a recording of voice commands but of DTMF signals. Buttons pressed along with time information between pressing of buttons is saved. Two types of DTMF buttons may be saved. A button of type IMMEDIATE will be used to the service without regard to prompting. A button type of WAIT will be issued to the service only after a moment of silence is detected. (Col. 3, lines 52-62.) When the desired macro is captured and the telephone macro is saved to a desired invocable sequence.

For example, multiple stock trades may be accomplished by repeating the following scenario: (1) a first macro to dial the telephone number and navigate to the desired point in the automated trading service menu; (2) a manually entered stock symbol; (3) a second macro to complete the trade; and (4) a third macro to navigate back to a navigation path where step 2 can be performed again. The macro is in a library of the contact center. It is not provided by the caller. This prevents the caller from waiting while a recorder plays a verbal response to each of the prompts, as described in Johnson.

Accordingly, the pending claims are allowable.

The dependent claims provide further reasons for allowance.

For example, dependent claims 39-43, 53-56, and 63-67 are directed to creating, editing, and/or deleting macros. Both Peck et al. and Ortega fail to teach how a macro is edited. Regarding editing a macro, Johnson states, at col. 4, lines 7-12, that the user has the ability to

alter strings at a personal computer, in which case subsequent telephone browses of the macros will produce an annotated voice output from the textual description. It says nothing about editing the macro by voice commands.

Moreover, Ortega teaches that the macro is created not by voice command but by user entry of a macro name in the GUI, and, in response to a user command to create the dictation, the speech application creates a baseform for the name in accordance with the step of block 48. Once the baseform for the name is established, the macro name and macro text can be associated with one another as the desired dictation macro in accordance with the step of block 50. Thereafter, in any subsequent dictation session the macro text will be typed whenever the macro name is spoken.

Dependent claims 47, 60, and 71 are directed to the execution of the various voice commands in a macroinstruction without regard to a timing between receipt of the corresponding voice commands from the user. Dependent claims 48 and 72 are directed to the simultaneous or substantially simultaneous execution of voice commands when the respective macroinstruction is invoked by a user. In both Peck et al. and Johnson, the various instructions constituting the macro are executed in the order *and timing* in which they are received from the user. In Peck et al., the computer, in response to the operator's command, records the order and timing of a series of verbal commands and executes the command sequence, in the proper order and at the proper timing, in response to a single operator command. In Johnson, a macro is a recording made during a user's verbal negotiation of a menu by saving a button type that is determined by the

duration of the telephone button pressed, the button, and the time since press of the previous entry. In this manner, the user can invoke the saved recording of interface activity at any time so that the automated telephone service is interfaced to in an automatic manner. Thus, to record a macro the user must interface to an automated service and record the interaction.

Applicant wishes to clarify the intended meaning of certain claim language in light of the Federal Circuit decision "SuperGuide Corporation v. DirecTV Enterprises, Inc., et al., 358 F.3d 870 (Fed. Cir. 2004). In that decision, the Federal Circuit held, under the unique facts of that case, that the phrase "at least one of a desired program start time, a desired program end time, a desired program service, and a desired program type" means "at least one of a desired program start time, at least one of a desired program end time, at least one of a desired program service, and at least one of a desired program type".

Applicant has used the phrases "at least one of . . . and", "one or more" and "and/or" in a number of claims and wishes to clarify to the Examiner the proper construction of this phrase. Applicant intended the phrases "at least one . . . and", "one or more", and "and/or" as used in the claims to be an open-ended expression that is both conjunctive and disjunctive in operation. For example, the expressions "at least one of A, B and C", "one or more of A, B, and C", and "A, B, and/or C" mean A alone, B alone, C alone, A and B together, A and C together, B and C together, and A, B and C together. Applicant believes that this construction is consistent with the Examiner's construction of the claims in the Office Action. If the Examiner disagrees with this

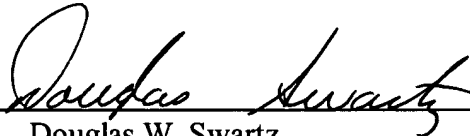
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construction, Applicant respectfully requests that the Examiner notify Applicant accordingly so that Applicant can further amend the claims.

Based upon the foregoing, Applicants believe that all pending claims are in condition for allowance and such disposition is respectfully requested. In the event that a telephone conversation would further prosecution and/or expedite allowance, the Examiner is invited to contact the undersigned.

Respectfully submitted,

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